

PATENT Attorney Docket No: 27013/35308

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

) I hereby certify that this paper is being Applicant: Loughney, Kate) deposited with the United States Postal) Service as First Class mail, postage Serial No.: 09/256,000 prepaid, in an envelope addressed to:) Assistant Commissioner for Patents, Filed: February 23, 1999 Washington, D.C. 20231, on April 26, 2000. For: Phosphodiesterase 10 Group Art Unit: 1642 Examiner: R. Hutson, Ph.D.

Ph.D., UNDER 37 C.F.R. §1.131 DECLARATION OF KATE LOUGHNEY

I, Kate Loughney, Ph.D., state that,

- 1. I am the sole inventor of the subject matter claimed in the above application which claims priority of U.S. Provisional Application Serial No: 60/075,508, filed February 23, 1998. I am making this declaration to provide evidence that the subject matter claimed in the above application was completed in the United States at a date at least prior to December 9, 1997, which is the effective filing date of U.S. Patent 5,922,595, cited by the Examiner in an Office Action mailed October 26, 1999.
- 2. To establish the date of completion of the invention, copies of pages from my laboratory notebook are attached as Exhibit A. Dates on these pages have been removed.
- 3. The first page in Exhibit A describes the plan for constructing an expression construct using previously isolated clone FB 94a is described at page 28, lines 23 through 24, to encode a complete open reading frame for PDE10.

- 5. The second page in Exhibit A describes steps for growing a host cell line transformed with the completed expression construct comprising the FB 94a sequence under control of the alcohol dehydrogenase promoter as described in the specification in Example 4.
- 6. Pages 3 through 6 in Exhibit A set forth the final sequence determined for clone FB94a.
- 7. From these laboratory notebook pages, it can be seen that the subject matter of the claims in the application was completed at least before December 9, 1997.
 - 8. This declaration is submitted in response to a non-final Office Action.
- 9. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information an belief are believed to be true; and further that these statements were made with the knowledge that wilful false statements and the like so made are punishable by finc or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Kate Loughney 4/26/00
Kate Loughney, Ph.D. Date

TITLE POEICA Expression Construct - AUHE Book No
From Page No
to build expression construct pde 10.
lactes yellow + green regions Loss of yellow changes frames, uses 8' met in another frame.
MDAFRETPY K as FB7=.2
sequence cont to confirm.
How Mest 1 A 21 A 3 Hink 2 — Ecors fragment from FRAY 1 Cut. Nos!/Hinc 2 Sk. ADH2 - Nos!-R1 SacI-SalI (No. sites internal) to move to ADH2 Vector
NEGI: - The grant and ACT 216
AGTC CEATGG ACG CATT CAGA AG CONTEAG 21/23 matches. match. M D A F R 3R T 11 -GC match. match match put tag here. To Page No.12
Witnessed & Understood by me. Date Invented by Recorded by Recorded by Recorded by Recorded by

Recorded by Loughney

Contig[0002] Sequencher M *fts4errac* mc45118 fb882a1, 1 to 87 mc45118 fb882a1, 81 to 844 mc45119 f71a2, 123 to 723 mc45119 f71a2, 123 to 723 mc45121 f71a4, 440 to 1139 mc45122 f71a4, 440 to 1139 mc45122 f71a4, 1188 to 1848 mc45122 f71a4, 1188 to 1848 mc45122 f71a5, 1188 to 1848 mc45122 f71a5, 1188 to 1848 mc45122 f71a5, 1188 to 1848 mc45128 frequent same direction frequents Storie frequents Storie fre		Book Yo.	TITLE FRAME	PDEID Final segu	mu.
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mc45117 /7103, 1 to 344 mc45118 m582e1, 66 to 818 mc45119 r71e2, 123 to 723 mc45121 r71e4, 440 to 1139 mc45122 r71e2, 1186 to 1848 mc4737 m13, 850 to 1848 m	mc45116 fb	682a1. 1 to \$7			
mc45118 / file2 123 to 723 mc45119 / file2 123 to 723 mc45119 / file2 123 to 723 mc45120 / file1 75124 440 to 1139 mc45122 / file2 1186 to 1848 mc45122 / file2 file3 mc45122 / file3					
mc45119 /71a2, 123 to 723 mc45118 / 10881 st. 319 to 1118 mc45120 / 71a1, 788 to 1453 mc45120 / 71a1, 788 to 1453 mc45120 / 71a1, 788 to 1453 mc45120 / 71a2, 1188 to 1848 mc45121 / 71a2, 1188 to 1848 mc45122 / 71a2, 1188 to 1848 mc45122 / 71a2, 1188 to 1848 mc45122 / 71a2, 1188 to 1848 mc45121 / 71a2, 1188 to 1848 mc45122 / 71a2, 1188 to 1848 mc45121 / 71a2, 1188 to 1848 mc45122 / 71a2, 1188 to 1848 mc45121 / 71a2, 1188 to 1848 mc45122 / 71a2, 1188 to 1848 mc45121 / 71a2, 1188 to 1848 mc45121 / 71a2, 1188 to 1848 mc45122 / 71a2, 1188 to 1848 mc45121 / 71a2, 1188 to 1848 mc45122 / 71a2, 1188 to 1848 mc45121 / 71a2, 1188 to 1848 mc45121 / 71a2, 1188 to 1848 mc45121 / 71a2, 1188 to 1848 mc45122 / 71a2, 1188 to 1848 mc45121 / 71a2, 1188 to 1848 mc45122 / 71a2, 1188 to 1848 mc45121 / 71a2, 1188 to 1848 mc45122 / 71a2, 1188 to 1848 mc45122 / 71a2, 1188 to 1848 mc45122 / 71a2, 1188 to 1848 mc45121 / 71a2, 1188 to 1848 mc45122 / 71a2, 1188 mc4					
mc45121 171a4, 440 to 1139 mc45121 171a4, 440 to 1139 mc45122 171a2, 1188 to 1848 mc45122 171a2, 1188 m		mc48118 fb68261, 6	16 to 810		
Model 17184, 440 to 1139 mc45120 77181, 788 to 1453 mc45122 77182, 1188 to 1848 mc45122 mc45		mc46119 171a2, 123	10 723		
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Single fragments same direction Both strands plus Start codon frame 1 Stop codon frame 2 FB94a Seg is Plushed. To Page To Page	1 05	318 440			
Single fragments same direction Both strands plus Start codon frame 1 Stop codon frame 2 FB94a 5eq is Plushed. To Page To Page	<u></u>		2		
Single fragments same direction Both strands plus Start codon frame 1 Stop codon frame 2 Stop codon frame 2 Stop codon frame 2 To Page To Page					=====
To Page		Both Both	ple fragments same direction strands strands plus Strands plus Stop codon frame 1 stop codon frame 2 st	ragments how motifs, pillow rectangles	
table to retained as with		·		2019	To Page \
Gerarday .	18316 4 18136	ccc sv milica 327	Vc betnevni	3313	
		Mas	Secondary		

From Page No.__

fb94a final 10000 PH IN FB to . 2 ONE of this 2 place. CCCAAGGCCATCTACCTGGACATCGATGGACGCATTCAGAAGCACTCCGTACAAAGTGAG
P K A I Y L D I D G R I Q X Y V Q R
P R P T N T D D A R A L R T K D 60 ACCTGTGGCCATCAACCAACTCTCCCAAAAAAAAAAAATTAATCCAGAGCGTGCTGGCGCA 120 C G H Q A T LERER RANG A P R R A G A V A A C GGTTGCAGAGCAGTTCTCAAGAGCATTCAAAATCAATGAACTGAAAGCTGAAGTTGCAAA 180 G C R A V L K S I Q M Q + T E S + S C K V A E Q F S R A F K I N E L K A E V A N L Q S S S Q E H S K S N M + K L K L Q KSNN * KLKLQI TCACTTOGCTGTCCTAGAGAAACGCGTGGAATTGGAAGGACTAAAAGTGGTGGAGATTGA 240 LGCPRETTROSIGRTKSGGD* LAVLERVELEGLKVVEIE LIB R R N N W K D * K W W R L R GAAATOCAÀGAGTGACATTAAGAAGATGAGGGAGGAGCTGGCGGCCAGAAGCAGCAGGAC 300 ENQBAREDEGGAGGQKQQD KCKBBIKKKREELAARSSR MASE VOT L ROR * G R S W R P Hinks PEAAGP CAACTOCCCCTOTAAGTACAGTTTTTTTGGATAACCACAAGAAGTTGACTCCTCGACGCGA 360 LOS VOFFG PQE V D S S T R
LONH K K L T P R R D
V S T V P W I T T R S + L L D A M TCCACTTACCCCAAGTACCTGCTCTCTCCAGAGACCATCGAGGCCCTGCGGAAGCC 420 LPQVPALSRDHRGPAEA
YPKYLLSPETIEALRKP
LTPSTCSLQRPSRPCGSR CTTTOACGTCTGGCTTTGGGAGCCCAATGAGATGCTGAGCTGCCTGGAGCACATGTA 480 RLALGAQ + DAELPGAHV
DVWLWEPNEMLSCLEHMY LTSGFGSPMRC + AAWSTC **CCACCACCTCGGGCTGGTCAGGGACTTCAGCATCAACCCTGTCACCCTCAGGAGGTGGCT** 540 PRPRAGQGLQHQPCHPQEVA TSGWSGTSASTLSPSGGGC **GTTCTGCGT**CCACGACAACTACAGAAACAACCCCTTCCACAACTTCCGGCACTGCTTCTG 600 V L R P R Q L Q K Q P L P Q L P A L L L F C V H D N Y R N N P F H N F R H C F C S A S T T T E T T P S T T S G T A S A

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Mitnessed & Understood by me.

Date

inventad by

Date

Race loughney



1320

FB940-PDE10-Final sequence

1-1 " 31C# NO.-

GCTGCAGCCACTTTGGGAATCCCGAGATCGCTACGAGGAGCTGAAGCGGATAGATGACGC
A A A T L G I P R S L R G A E A D R * R
L Q P L W E S R D R Y E E L K R I D D A
C S H F G N P E I A T R S * S G * M T P

CATGAAAGAGTTACAGAAGAAGACTGACAGCTTGACGTCTGGGGCCACCGAGAAGTCCAG
H E R V T E E D • Q L D V W G H R E V Q
M K E L Q K K T D S L T S G A T E K S R

AGGGAGAAGCAGAGATGTGAAAAACAGTGAAGGAGAGACTGTGCCTGAGGAAAGCGGGGGGCC

REKQRCEKQRRLCLRKAAG
GRSRDVKNSEGDCAGKRGAAGCGGGGGAAGAGCT

GRSRDVKNSETVPEESGRA

KRLTUNIAGAACCAGGGAAAGACCTGGCCGGGGAAAGCCT

TO P W T G N P B C A G S L C R E E L

GCCTGGGCACCTGCACCACAAGACCATGTTTTCTAAGAACCATTTT

1548

A L G T W H H K T M F S K N H F

P W A P G T T R P C F L R T I

P W A P G T T R P C F L R T I

P W A P G T T R P C F L R T I

P W A P G T T R P C F L R T I

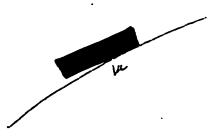
met at 26-stop at M24. 466 a.a. 54307 Da

WITH FLASTRY
475 DA M. DYKODOK55143 PDE10.

when compared to other POES 2950 match PDE4's.

#DLD HP ---- CNIF

24 match to rod a in same region W/g-ps



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Witnessed & Understood by ms.

Date

Invented by

Date

Recorded by brighney